

ABSTRACT

An apparatus and method for generating an initial puncturing matrix from which a first sub-code is produced in a communication system is provided.

- 5 The apparatus includes a turbo encoder for generating information symbols and first and second parity symbols for the input of an information bit stream and a sub-code generator for generating sub-codes from the information symbols and the first and second parity symbols using puncturing matrices. The method comprises the steps of selecting as many information symbols as a number of
- 10 columns in the initial puncturing matrix from the information symbols output from the turbo encoder, if a difference between the number N_s of selected symbols in the initial puncturing matrix and the number of the columns in the initial puncturing matrix is equal to or greater than a number of component encoders in the turbo encoder and selecting as many first and second parity
- 15 symbols as the difference.